

Daylight Occultation of Aldebaran on July 9, 1885, observed at Forest Lodge, Maresfield. By Captain W. Noble.

Although the Moon's age was about 26·43 days, her bright limb, at moments of good definition, was seen sharp and clear against the sunlit sky. *Aldebaran*, too, was brilliant enough at intervals, but the undulation was at times very great indeed. Most unfortunately, one of these fits of "boiling" came on just as the Moon's limb was in contact with the star, so that the best estimation I could make of its disappearance was that it occurred on July 8, $23^{\text{h}} 25^{\text{m}} 17^{\text{s}} \cdot 8 \pm$ Local Mean Time = $23^{\text{h}} 25^{\text{m}} 08^{\text{s}} \cdot 00$ G.M.T. I made no attempt to observe the reappearance. Power employed, 74 on my 4·2-inch Ross Equatorial. Latitude of my observatory, $51^{\circ} 0' 56'' \cdot 3$ N.; longitude, 17·8 seconds E.

Forest Lodge, Maresfield, Uckfield:
1885, July 9.

Erratic Meteors. By B. J. Hopkins.

As is well known to observers of meteors, the apparent paths of those bodies, as seen by us projected upon the celestial vault, are generally in the form of a curve, but sometimes they appear to travel in straight lines, while a comparative few have no appreciable path, being seen only as points of light, which are no sooner observed than they are gone.

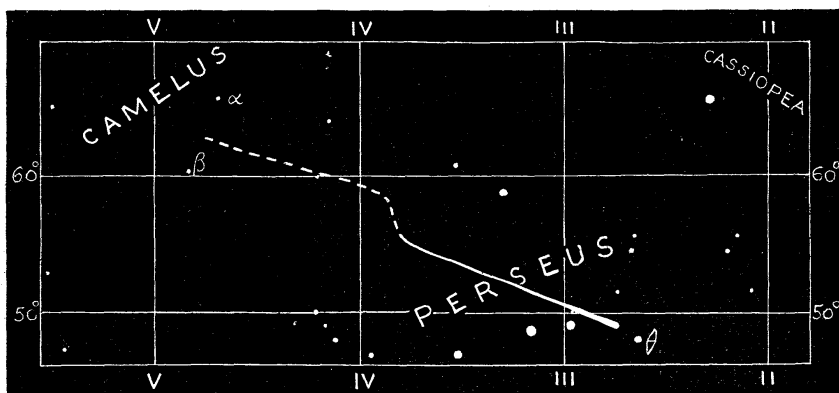
There is, however, a class of meteors that I have occasionally observed, though never found described in the text-books, which differs from those usually seen in that they travel in a zigzag or wavy path; from which circumstance and the rarity of their appearance I propose designating them "erratic" to distinguish them from ordinary meteors, which, it is perhaps needless for me to mention, they resemble in every other particular.

As I have said, these meteors are very rarely seen; I first observed one in the year 1879, and I have only noticed two since—one in 1881 and the other on September 9 of the present year. Details of these meteors I give in the following extracts from my note-books, which, together with the charts showing their course among the stars and the form of their paths, will make clear what I mean by erratic meteors.

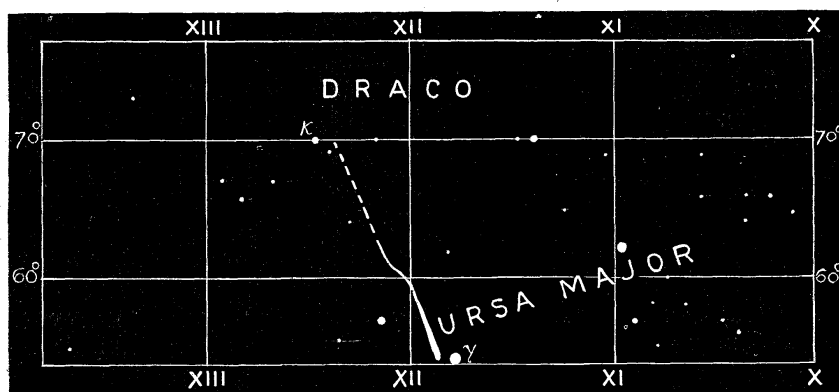
Extracts from Note-books.

- 1879, Oct. 20.— $10^{\text{h}} 49^{\text{m}}$ G.M.T. Observed a bright yellow meteor, which described a zigzag path with two bends, as shown in diagram. Appeared between α and β *Cameli*, disappeared near θ *Persei*.
- 1881, June 25.— $12^{\text{h}} 4^{\text{m}}$ G.M.T. Observed a bright white meteor = 4. Appeared just south of κ *Draconis*, disappeared near γ *Ursæ Majoris*, after pursuing a wavy path.

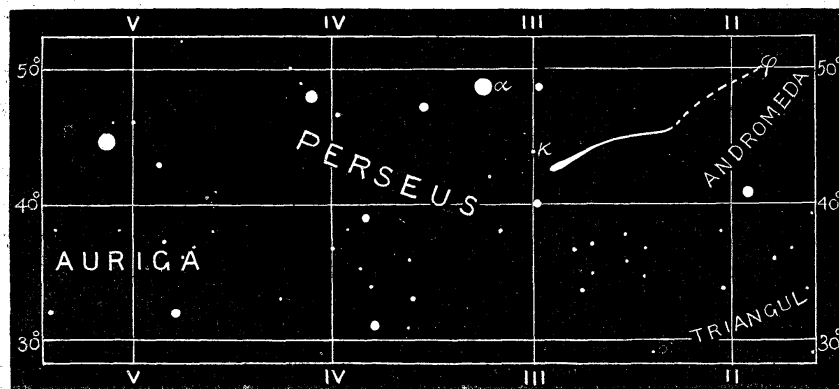
1885, Sept. 9.—10^h 15^m G.M.T. Bright orange-coloured meteor=24. Appeared near ϕ *Persei*, disappearing just north of κ *Persei*, after describing a zigzag path with three bends.



Meteor of 1879, Oct. 20.



Meteor of 1881, June 25.



Meteor of 1885, Sept. 9.

For the sake of clearness, the scale being so small, the bends in the paths, as shown on the charts, are greatly exaggerated; in no case did a bend extend over more than 20 minutes of arc.

Forest Gate, Essex.

On the Application of a Nicol's Prism to Sextant Observations.
By Thomas Mackenzie.

(Communicated by Capt. H. Tynbee.)

I beg to submit to the consideration of the Royal Astronomical Society the application of the Nicol's prism to sextant observations made at sea, for up to the present moment I am unaware of a polariser having been employed with the sextant. My application of it is as follows. A Nicol's prism is inserted in the inverting telescope on the object-glass side of the diaphragm and close against it, and so placed that when the telescope is screwed home in its collar the polarising plane will be parallel to the plane of the sextant, and consequently perpendicular to the plane of the horizon when making observations. Now at sea observations for time are usually taken when the Sun has an altitude of between 30° and 40° in low latitudes, at which time there is a considerable glare on the horizon, rendering it very indistinct even when the coloured shades are used. In high latitudes, such as that of England, except in midsummer, there is always more or less horizon glare even at the Meridian altitude, so that the advantages of such an instrument would be more striking. The glare of light from the horizon is totally refracted out of the prism, and only the extraordinary ray transmitted to the eye, rendering the horizon comparatively dark and clearly defined, and free from the displacement which coloured shades wanting in parallelism of their faces always give.

I have now employed the instrument at sea during a voyage to the West Indies and South America, and it has fulfilled all I expected of it.

R.M.S. "*Moselle*," Southampton:
1885, August 13.

Ephemeris for Physical Observations of Mars, 1886.
By A. Marth.

Greenwich Noon.	Angle of Position of \odot 's axis.	Areographical Longit. Latit. of Centre of Disc.		Dia- meter.	η	Q	E	Log. Light ratio.
1885.								
Dec. 24	20 $^{\circ}$ 85	94 $^{\circ}$ 49	+ 23 $^{\circ}$ 52	8 $''$ 30	0 $''$ 76	292 $^{\circ}$ 58	35 $^{\circ}$ 32	9 $^{\circ}$ 2205
26	21 $^{\circ}$ 19	75 $^{\circ}$ 65	23 $^{\circ}$ 50	8 $''$ 44	77	292 $^{\circ}$ 53	35 $^{\circ}$ 05	2351
28	21 $^{\circ}$ 50	56 $^{\circ}$ 83	23 $^{\circ}$ 47	8 $''$ 58	77	292 $^{\circ}$ 47	34 $^{\circ}$ 75	2499
30	21 $^{\circ}$ 79	38 $^{\circ}$ 05	23 $^{\circ}$ 43	8 $''$ 73	76	292 $^{\circ}$ 40	34 $^{\circ}$ 42	2650
1886.								
Jan. 1	22 $^{\circ}$ 07	19 $^{\circ}$ 31	+ 23 $^{\circ}$ 39	8 $''$ 88	0 $''$ 76	292 $^{\circ}$ 33	34 $^{\circ}$ 06	9 $^{\circ}$ 2804
3	22 $^{\circ}$ 33	0 $^{\circ}$ 60	23 $^{\circ}$ 35	9 $''$ 04	76	292 $^{\circ}$ 24	33 $^{\circ}$ 67	2960
5	22 $^{\circ}$ 57	341 $^{\circ}$ 92	23 $^{\circ}$ 30	9 $''$ 20	75	292 $^{\circ}$ 14	33 $^{\circ}$ 24	3118